

**Opening Statement of Senator Bill Frist  
Chairman, Science, Technology, and Space Subcommittee  
Hearing on  
“The Role of Standards in the Growth of Global Electronic Commerce”  
October 28, 1999**

Good morning and welcome to the Science, Technology, and Space Subcommittee hearing on “The Role of Standards in the Growth of Global Electronic Commerce.”

Electronic commerce, or “e-commerce,” has fundamentally changed the paradigm for how businesses operate, how business-customer relationships are cultivated, and how we ourselves purchase goods.

E-commerce has been widely embraced, both for its promise to significantly reduce the cost of doing business, and for its potential to provide businesses with greater reach to potential customers. This is evident in the growth of the electronic commerce market which, though almost non-existent just a few years ago, is expected to top a staggering \$1 trillion by 2003, according to market research reports. The market for e-commerce application software is expected to grow 280 percent in 1999 to \$1.7 billion, and projected to jump to \$13.1 billion by 2003.

Today's hearing focuses on the importance of standards in enabling the growth of global electronic commerce. Electronic commerce, as an application on the Internet, is inherently global. As such, our discussion must be global in nature.

If we define e-commerce as the electronic transactions involved in the purchase of goods and services, then for e-commerce to reach its full potential, these transactions must be able to be completed seamlessly, regardless of geographical or regulatory borders.

Thus, an important enabler for global electronic commerce is the ability of different systems to communicate and exchange data, commonly referred to as “system interoperability.” The continued growth of e-commerce depends on a fundamental set of technical

standards that enables essential technologies to interoperate, and on a policy and legal framework that supports the development that the market demands. A lack of interoperability introduces inefficiency into the e-commerce system, preventing it from realizing its maximum potential. We are interested in hearing about this impact on your current and future business operations.

In discussing standards, we can consider at a minimum the issues at two different levels:

- 1) the development of technology-specific specifications, and
- 2) the establishment of technology-neutral frameworks.

Consider, for example, the technology-neutral framework being proposed for the use of electronic authentication, which does not presuppose any technology-specific solutions.

Traditional standards organizations such as the International Standards Organization are often slow to accommodate the rapidly changing environment of a new market such as e-commerce. Moreover, the perceived permanence and monopolistic nature of formal standards often results in fierce competition between companies struggling to protect their intellectual property assets and investments.

In response to this situation, a proliferation of industry consortia has been formed, usually by groups of companies who are collaborating to develop interoperable systems that can quickly address market needs. Both types of organizations—the formal standards organizations and the new industry consortia—have roles to play in establishing interoperability of e-commerce systems.

Through both formal standards bodies and industry consortia, the private sector is aggressively building a suite of standards to support both the global electronic commerce infrastructure and the specific needs of global electronic commerce services.

However, to be effective, these industry-led standards should eliminate barriers to trade and competition while stimulating innovation. They must also be flexible, responsive, and directed toward non-proprietary solutions. Several of the witnesses today will address these issues.

We are also interested in your recommendations on what, if any, role the government should play in establishing a framework that will be conducive to achieving the objectives I have just stated, and help facilitate the development of relevant standards, thus ensuring the continued growth of electronic commerce. Agreeing on such a framework establishes a common foundation which we can use for future discussions.

Today's hearing represents our efforts at establishing a three-way dialogue on these subject matters, between the private sector, the Administration, and the Congress.

The Administration position will be well represented by the Department of Commerce. We have also invited a foremost academic expert who wrote one of the first textbooks on electronic commerce.

From the private sector, CommerceNet and the Financial Services Technology Consortium are representative of the mixture of both industrial consortia and formal standards bodies collaboration. We are interested in hearing how the financial sector is addressing the interoperability issue as it is the glue at the center of e-commerce services.

As a large retailer, Wal-Mart represents one of the most innovative companies in industry today that has integrated e-commerce into its current and future business operations.

Thank you.